Montana Transportation Commission Meeting Agenda November 6, 2003 – Room 201 Transportation Building – Helena, MT

8:00 a.m.	Call to order		
10:30 a.m.	Battlefield East - Discussion		
11:00 a.m.	DELEGATION – Speed Zone - East Helena – Mayor Ed Murgel		
11:30 a.m.	DELEGATION – Speed Zone – Huffine Lane - Bozeman		
The following items will be acted on throughout the day as time allows.			
11-03-01	Enhancement Projects on MDT Right of Way		
11-03-02	Speed Zones – Comments Concur Wibaux North - Secondary 261 Miles City North - Montana 59 Richey - Secondary 254 Winifred North – Secondary 236 Valley Center Drive – Secondary 235 Springhill Road – Secondary 411 Broadus South – Secondary 391 Froid – Secondary 405		
11-03-03	Certificates of Completion		
11-03-04	Liquidated Damages – IM 15-4(86)190 Helena North and South		
11-03-05	Work Orders		
11-03-06	Letting Lists		
11-03-07	Commission Discussions & Public Comment		
11-03-08	Amsterdam Road – Update		
11-03-09	Contract Award-Telephone Meeting Schedule for 2004 & Future Meetings		

Agenda Item: DELEGATION				
Staff Person Handling: Dave Galt				
Date: November 6, 2003 Time: 10:30 a.m.				
Item: Battlefield East				
Background: Update				
Staff Recommendations:				
Notes/Discussion				
Commission Action				

Agenda Item: DELEGATION

Staff Person Handling: Transportation Commission

Date: November 6, 2003 Time: 11:00 a.m.

Item: Speed Zone - East Helena Main Street

Example 2003 East Helena April, 2003

Study Completion: May, 2003

ZZ Jurisdiction: State Maintenance

EXE Functional Class: Collector (off-system X-route)

Speed Limit: 35 mph - 45 mph - 70 mph

2003 Traffic Volume: 2900 During the Study

Accident Rate: 0.86 per mvm

Statewide Average Not Available

Extend Special Speed Limits East

Reduce 35 mph and a portion of the 45

mph Speed Limit to 25 mph

Reduce 70 mph Speed Limit to 45 mph

ZZ Local Comments: Request Further Extension of Proposed

Speed Limits

This investigation was requested by the City of East Helena. City officials reported that there is a new residential development north of East Main Street near the intersection with Oak Avenue. They have requested that the 25 mph speed limit be extended east to encompass the intersection with Oak Street. The request also included a review of the remainder of the route to the east, as there are no posted speed limits along this segment. A portion of the study area is located within the jurisdiction of Lewis and Clark County. We informed Lewis and Clark County of the City of East Helena's request. They support reviewing the speed limit configuration along the portion outside the incorporated boundaries of East Helena.

This investigation began at the intersection with Thurman Avenue and continued east 1.2 miles to the intersection with US 12. In reviewing our files we identified that an official speed limit configuration for East Main Street was approved in 1964. We also identified that the existing posted speed limits did not reflect the 1964 Montana Highway Patrol Board approved special speed limit configuration. There are no approved speed limits on record for the portion of the study area east of the city limits.

The study area consists of two distinct environments. West of the intersection with Lane Avenue the roadway passes through an urban district with residences located along and facing both sides of the roadway. From the intersection with Lane Avenue to the intersection with US 12 the roadside environment is more open in character. There are nearby residential developments along both sides of the roadway. These developments are set back away from the roadway and are accessed via local streets. There is an industrial concrete related business located adjacent to the roadway within this segment.

The typical section consists of two 12-foot travel lanes and two 1-2 foot shoulders. West of the intersection with Lane Avenue the shoulders widen to accommodate parallel parking. There is curb and gutter west of Lane Avenue. With the exception of a horizontal curve at the intersection with US 12 the roadway is straight and flat. Intersection and stopping sight distances are good.

Accident History - The accident history was reviewed for a three-year period from January 1, 2000 to December 31, 2002. There were three accidents reported within the study area during this period. The accident rate is 0.86 accidents per million vehicle miles traveled. The accidents consisted of two rearend accidents and one angle accident. This segment of roadway is functioning safely with very few conflicts for an urban type setting.

Travel Speeds - Vehicular travel speeds were collected at six locations to develop a speed profile of the area. The number of vehicles sampled directionally ranged between 900 and 1800 vehicles at each location.

At the intersection with Thurman Avenue the 85^{th} percentile speeds were 30 mph westbound and 39 mph eastbound. The pace of the traffic stream ranged between (23 mph – 33 mph) to (29 mph – 39 mph) with 66 percent to 79 percent of the traffic stream traveling within the pace. East of the intersection with Grand Avenue the 85^{th} percentile speeds were 28 mph and 29 mph. The pace of the traffic stream was (20 mph – 30 mph) with 77 percent to 83 percent of the traffic stream traveling within the pace. Near the intersection with Kalispell Avenue the 85^{th} percentile speeds were 30 mph and 33 mph. The pace of the traffic stream ranged between (14 mph – 24 mph) with 66 percent to 69 percent of the traffic stream traveling within the pace.

Just east of the intersection with Oak Avenue the 85th percentile speeds were 45 mph and 46 mph. The pace of the traffic stream was (35 mph – 45 mph) with 57 percent to 60 percent of the traffic stream traveling within the pace. Near the intersection with Old Lake Helena Drive the 85th percentile speeds were 46 mph. The pace of the traffic stream was (35 mph – 45 mph) with 56 percent to 57 percent of the traffic stream traveling within the pace. Just west of the intersection with Lake Helena Road the 85th percentile speeds were 35 mph

westbound and 41 mph eastbound. The pace of the traffic stream ranged between (26 mph - 36 mph) and (32 mph - 42 mph) with 67 percent to 74 percent of the traffic stream traveling within the pace.

Conclusions and Recommendations - The results of this investigation have identified that the study area consists of two distinct segments in terms of travel speeds and environment. The last three years of accident experience indicates that the entire area is functionally very well with few conflicts.

West of the intersection with Kalispell Avenue the travel speeds and the environment are consistent with those currently covered under statutory 25 speed limit for the remainder of the city. East of the intersection with Kalispell Avenue the development is more dispersed and sets back from the roadway. The 85th percentile speeds and the upper limit of the pace at the intersection with Oak Avenue and the intersection with Old Lake Helena Drive support a 45 mph speed limit.

Based on the two environments identified and the travel speeds associated with each environment we recommend the following 45 mph speed limit for the east end of the study area. The remainder of the study area west of the intersection with Kalispell Avenue will revert back to the statutory speed limit of the 25 mph. For this segment of roadway to revert back to the statutory 25 mph speed limit we recommend the following action.

Staff Recommendations:

Remove the 35 mph speed limit from station 221+50 to station 230+00 and the portion of the 45 mph speed limit from station 230+00 to station 235+00, as approved by the Montana Highway Patrol Board in 1964. This segment of roadway from station 221+50 to station 230+00 will revert back to the statutory speed limit of 25 mph for an urban district.

For the segment of roadway east of Kalispell Avenue we recommend the following 45 mph speed limit.

A 45 mph speed limit beginning at station 235+00, project FAP 77 C (the west side of the intersection with Kalispell Avenue) and continue east to the intersection with US 12, an approximate distance of 4000 feet.

In advance of the 25 mph speed zone a "Reduced Speed 25" sign with a supplemental distance plaque will be included in our final design.

The results of this recommendation result in a reduction of the existing speed limit configuration approved by the Montana Transportation Commission in 1964. A copy of the 1964 Montana Highway Patrol Board action is attached.

The proposed speed limits were presented to the City of East Helena and Lewis and Clark County for comment. Both agencies request that the 25 mph speed limit be extended east to the intersection with Oak Avenue. Their comments are attached.

Commission Action:

Agenda Item: DELEGATION

Staff Person Handling: Joel Marshik

Date: November 6, 2003 Time: 11:30 a.m.

Item: Speed Zones – Huffine Lane – Bozeman

Background:

ZZ Request: Gallatin County August, 2003

EXE Study Completion: September, 2003

State Maintenance

EXE Functional Class: Arterial

Speed Limit: 65 mph

2003 Traffic Volume: 17,200

Accident Rate: 1.20 accidents per mym

1.52 Statewide Average

Reduce 65 mph Special Speed Limit

East of Cottonwood Road

ZZ Recommendation: 55 mph Speed Limit

Local Comments: County requests extending 55 mph zone

City requests 45 mph and 55 mph zones

This investigation was requested by Gallatin County officials. This request was prompted by two recent fatal accidents at the traffic-signalized intersection with Ferguson Road. The purpose of this request is to consider reducing the 65 mph speed limit on Huffine Lane, particularly along the eastern segment from the intersection with Cottonwood Road to the intersection with Fowler Road (near the entrance to the mall). Area residents have voiced desires for a 45 mph speed limit along this segment. County officials did not specify a desired speed limit within their request. Bozeman City officials also submitted a letter requesting a review of the 65 mph speed limit east of Ferguson Road.

The Department conducted an engineering and traffic investigation evaluating the speed limit

The Department conducted an engineering and traffic investigation evaluating the speed limit configuration along Huffine Lane. A copy of that report has been attached. From that

investigation it was determined that the existing 65 speed limit was consistent with the travel speeds. Therefore a no change recommendation was presented to city and county officials. In presenting the results of that investigation the Butte District office gathered information that there was a strong desire by both the City of Bozeman and Gallatin County officials for a reduction in the 65 mph speed limit. Upon hearing local official desires and receiving their written comments the Butte District office was also in favor of reducing the 65 mph speed limit.

Since the 65 mph speed limit was established the intersection of Ferguson Road has been placed under traffic signal control. The intersection with Cottonwood Road is currently in the process of being signalized. Much of the adjacent environment and outlying areas are also in various stages of development. Changes in the nearby environment and the addition of traffic signal control at these two intersections located within the 65 mph speed zone have influenced traffic operation along Huffine Lane.

In taking all information in account and that the 85th percentile speeds are below 65 mph in the area of concern the Department has arrived at a consensus to extend the 55 mph speed limit west of its present location.

Staff Recommendations:

A 55 mph speed limit beginning at station 199+00, project STPP 50-2(25) (900 feet west of the intersection with Cottonwood Road) and continuing east to station 311+00, an approximate distance of 6,500 feet.

Attached are the comments submitted by the City of Bozeman, Gallatin County and the Butte District office.

Commission Action:

Agenda Item: 11-03-01

Staff Person Handling: Sandy Straehl

Date: November 6, 2003

Item: Enhancement Projects on MDT Right of Way

Background: Cascade County project in Cascade - Bike/Ped Path-Cascade - This project begins at Joe's Trail Picnic Area. The trail heads south on Front Street North where it turns east on Central Avenue (MTS-330). From Central Avenue the trail proceeds north on Russell Drive turning east on 1st Avenue North terminating near the Missouri River. The scope of the project is to design and construct a 10-foot wide by 3100-foot long bicycle pedestrian path.

Cascade County project in Great Falls- Expo Park Landscaping-GTF – The project is located adjacent to Montana Expo Park on the west side of 3rd Street NW (N-101) from the NW Bypass to the Main entrance and at the South entrance. Project scope is for landscaping, which will include: the installation of an irrigation system, planting of trees and shrubs, placement of sod, restoration of the stone entryway at the south gate, installation of decorative lights and replacement of existing fence.

City of Great Falls project in Great Falls - North Entry Landscaping II-GTF – This enhancement project is located in northern Great Falls on the Old Havre Highway (N-104) between 15th Street N (US 87) and Smelter Avenue (N-101). The scope of this project is to plant native specimen trees, shrubs, plants and grasses.

City of Great Falls project in Great Falls - Bay Drive Bike/Ped Path II-GTF – The project is located on the west bank of the Missouri River adjacent to Bay Drive. The northern terminus lies just north of the 1st Avenue N (U-5210) bridge and the southern terminus will connect to the Phase I trail, located 1800 feet to the south. Phase I was approved by the Commission at their September, 2002 meeting and programmed in January, 2003. The purpose of this project is to design an 1800-foot long segment of bicycle/pedestrian trail and to construct a 480-foot segment.

City of Great Falls project in Great Falls - 25th St North Bridge-GTF – This project is located in Great Falls on 25th Street North (U-5217) between River Drive (N-102) and 8th Avenue North (U-5216). The bridge will span BNSF Railroad adjacent to the existing road structure. The project scope is for the design and construction of an 8' x 120' pedestrian/bicycle bridge. The project will also include sidewalk, curb and replacement of trees.

Cascade County project in Great Falls - 6th Street NW Landscaping-GTF – The project is located northeast of the intersection of 1st Avenue NW and 6th Street NW (U-5201). More specifically this project will landscape 205 feet along the north side of 1st Avenue NW and 271 feet along the east side of 6th Street NW. The landscaping will include the following:

installation of a sprinkler system, placement of top soil and sod, the planting of trees, shrubs and vines, the construction of 300 square feet of sidewalk and 203 linear feet of landscape curb.

With the addition of the North Entry Landscaping, Bay Drive Bike/Ped Path and 25th Street North Bridge projects, City of Great Falls will have utilized \$3,906,320 of the \$3,934,279 made available from the CTEP program.

With the addition of Cascade Bike/Ped Path, Expo Park Landscaping and 6th Street NW Landscaping projects, Cascade County will have utilized \$1,456,132 of the \$1,478,343 made available from the CTEP program.

Staff Recommendations: projects.	Staff recommends the Commission approve the enhancement
Notes/Discussion:	

Commission Action:

Agenda Item: 11-03-02

Staff Person Handling: Joel Marshik

Date: November 6, 2003

Item: Speed Zones – Comments Concur

Wibaux North - Secondary 261 Miles City North - Montana 59

Richey - Secondary 254

Winifred North – Secondary 236 Valley Center Drive – Secondary 235 Springhill Road – Secondary 411 Broadus South – Secondary 391

Froid - Secondary 405

ZZ Wibaux North - Secondary 261

Request: Wibaux County - June, 2000

EX Study Completion: August, 2003

ZZ Jurisdiction: County Maintenance

EXE Functional Class: Collector

Speed Limit: 50 mph Interim Speed Limit

2001 Traffic Volume: 110 AADT

EXE Accident Rate: 2.13 accidents per mvm

1.77 Statewide Average

EXE Issues: Reduce Statutory 70 mph Speed

Limit on the Gravel Segment

Recommendation: 55 mph Speed Limit

ZZ Local Comments: Concur

Wibaux County officials requested a speed limit investigation on the gravel and scoria segment of Secondary 261. This investigation was assigned to a consulting engineer. We reviewed the report submitted by the consultant and conducted an on-site review of the route.

Secondary 261 begins north of the Town of Wibaux and continues in a northerly direction 52 miles to an intersection with MT 200 south of Sidney. The central portion of the route is unpaved. The average annual daily traffic volume is less than 100. The roadway is curvilinear in nature and traverses rolling terrain. The Glendive District office and the county road foreman had previously conducted a windshield study of the route. From that study a 50 mph interim speed limit was recommended along the 18.9-mile gravel segment from milepost 8.9 to milepost 27.8.

The 85th percentile speeds along the gravel portion ranged between 52 mph to 65 mph. The pace of the traffic stream typically ranged between (40 mph – 50 mph) and (55 mph and 65 mph). Along the first two miles of the study area the 85th percentile speeds were in the 60 mph to 65 mph range. This segment of roadway is flatter with fewer horizontal curves. Motorists have good visibility of extended roadway segments along the first two miles. Along the remainder of the study area the roadway is more curvilinear. The average surface width of the roadway is 27 feet.

North of milepost 11 the horizontal and vertical alignments restrict sight distance. The 85th percentile speeds and the upper limit of the pace along this segment were typically between 55 mph and 60 mph. During our drive-thru of the study area we found it necessary to reduce our travel speeds both entering horizontal curves and cresting vertical curves.

In collecting the traffic data the consultant reported a solid uniform roadway surface throughout the study area. During our drive-thru overall surface conditions were also good. However, we did identify areas with loose gravel and some washboards. In conducting our drive-thru it was the consensus of the consultant, district traffic engineer and the investigations unit that speeds of 60 mph could not be maintained because of variations in the roadway surface. The spot speed samples collected at stations 3, 4, 5 and 6 best reflected the overall travel conditions.

There were six single vehicle accidents reported between June 1, 1998 and May 31, 2000. The accident rate is 2.13 accidents per million vehicle miles traveled. This is above the statewide average of 1.77 accidents per million vehicle miles for rural secondary highways. One of the accidents resulted in a fatality. Only one of the accidents occurred within a horizontal curve.

Staff Recommendations: Based on the information provided in the consultant's report and our driving impression we recommend the following 55 mph speed limit for this segment of Secondary 261. Typically 50 percent to 60 percent of the traffic stream is exceeding the 50 mph interim speed limit.

A 55 mph speed limit beginning at the pavement to gravel transition (milepost 8.9) and continuing north to the Wibaux County line, an approximate distance of 18.9 miles.

The results of this investigation were presented to Wibaux County officials for review and comment. They are in support of the proposed 55 mph speed limit. Their comments are attached.

Miles City North – MT 59

ZZ Request: Custer County - October, 2002

EXE Study Completion: July, 2003

State Maintenance

EXE Functional Class: Arterial

Speed Limit: Statutory 70 mph Speed Limit

ZZ 2001 Traffic Volume: 2020 AADT

Accident Rate: 1.70 accidents per mym

1.59 Statewide Average

Extend 45 mph Speed Zone

Recommendation: Introduce a 55 mph Speed Zone

ZZ Local Comments: Concur

Custer County Commissioners have requested that the 45 mph speed limit be extended north approximately 0.8 miles to encompass the intersection with Kinsey Road. Local residents are concerned about the travel speeds of southbound motorists as they descend down the hill approaching Miles City.

This segment of MT 59 was reconstructed under project F 157(14) in 1957. The typical section is 28 feet wide and consists of two 12-foot travel lanes and two 2-foot shoulders. The 2001 average annual daily traffic volume is 2020. North of the intersection with Kinsey Road the average annual daily traffic volume drops to 415. The adjacent roadside consists primarily of rangeland with some scattered development that sets back from the roadway. Additional features in the immediate area include the Miles City Airport. As MT 59 leaves Miles City it crosses over the Yellowstone River at milepost 1. North of the bridge the roadway traverses a 5 percent to 6 percent grade for 0.8 miles before flattening out and continuing north. There two intersections with local roads located within this segment. The local roads serve near by residential developments. There is good intersection and stopping sight distance throughout the study area. However, the available sight distance for the intersection with Kinsey Road is not readily apparent to motorists. This intersection is located near the vertical curve at the top of the grade. From the side approach the roadway surface drops from view.

The posted 45 mph to 70 mph speed limit transition is located midway up the grade just north of the intersection with Palisades Boulevard. In reviewing our records the 45 mph speed limit officially ends approximately 1000 feet south of its present location near the intersection with Prima Vista Drive.

Accident History - The accident history was reviewed for a three-year period from January 1, 2000 to December 31, 2002. During this period there were five accidents reported within the study area. The accident rate is 1.70 accidents per million vehicle miles traveled. This is slightly above the statewide average of 1.59 accidents per million vehicle miles traveled for rural primary routes.

The accident experience consisted of three single vehicle accidents and two rearend accidents. Two of the single vehicle accidents and one of the rearend accidents occurred at the intersection with the road to the airport. The rearend accident and one of the single vehicle accidents at this intersection were associated with motorists on the side approach accessing MT 59.

Travel Speeds - Vehicular travel speeds were sampled at six locations to develop a speed profile. The traffic data file for station four located at the 45 mph to 70 mph speed limit was lost due to a corrupt file within the traffic counter.

Beginning near the intersection with Hubbel Street within the 25 mph speed zone the 85th percentile speeds were 31 mph. The pace of the traffic stream was (20 mph – 30 mph) with 75 percent of the traffic stream traveling within the pace. Within the central portion of the 35 mph speed zone the 85th percentile speeds were 35 mph and 41 mph. The pace of the traffic stream ranged between (26 mph – 36 mph) to (32 mph – 42 mph) with 51 percent to 61 percent of the traffic stream traveling within the pace.

Within the 45 mph speed zone between the Yellowstone River Bridge and the intersection with Prima Vista Drive the 85th percentile speeds were 53 mph. The pace of the traffic stream was (41 mph – 51 mph) with 44 percent to 48 mph percent of the traffic stream traveling within the pace.

At the top of the hill near the access to the Airport the 85^{th} percentile speeds were 60 mph and 61 mph. The pace of the traffic stream ranged between (43 mph – 53 mph) northbound and (34 mph – 44 mph) southbound with 41 percent of the traffic stream traveling within the pace.

Eight hundred feet north of the intersection with Kinsey Road the 85^{th} percentile speeds were 68 mph and 73 mph. The pace of the traffic stream ranged between (55 mph – 65 mph) and (61 mph – 71 mph) with 38 percent to 40 percent of the traffic stream traveling within the pace.

Staff Recommendations: The results of this investigation support modification of the existing speed limit configuration north of Miles City. From the end of the existing 45 mph speed zone to the intersection with Kinsey Road south the travel speeds are well below the

statutory 70 mph speed limit. In addition to the travel speeds, the roadway geometrics and the traffic volumes also distinguish this segment of roadway from that north of the intersection with Kinsey Road.

Within the boundaries of the existing 45 mph speed zone the 85th percentile speeds and the upper limit of the pace are just above 50 mph. Further extension of the 45 mph speed zone is not supported by the speed statistics. Based on the projected speed profile a 55 mph speed limit is more representative of the travel speeds along this segment than the statutory 70 mph speed limit. The accident experience supports that this segment of roadway is functioning successfully at speeds of 55 mph or less. We recommend introducing a special 55 mph speed limit in advance of the 45 mph speed zone approved by the Montana Transportation Commission in 1977.

A 55 mph speed limit beginning at station 73+50, project F 157(14) (300 feet north of the intersection with Prima Vista Drive) and continuing north to station 117+00, project F 157(19) (300 feet north of the intersection with Kinsey Road), an approximate distance of 4,300 feet.

The proposed 55 mph speed limit was presented to Custer County officials for review and comment. Their comments concurring with the proposed 55 mph speed limit are attached.

Richey – Secondary 254

ZZ Request: Dawson County - August, 2000

EXE Study Completion: August, 2003

ZZ Jurisdiction: County Maintenance

EXE Functional Class: Collector

Speed Limit: 25 mph & 70 mph Statutory Speed Limits

ZZ 2001 Traffic Volume: 230 AADT

ZZ Accident Rate: 2.77 accidents per mym

1.71 Statewide Average

∑ Issues: No Approved Special Speed Limits

Recommendation: Retain Statutory 25 mph Speed Limit

Introduce 45 mph Speed Limits

Approaching Richey

Local Comments: Concur

Dawson County officials requested a speed limit investigation on Secondary 254 through the community of Richey. There are no approved special speed limits on record approaching or within Richey. Local officials would like to validate the existing posted 25 mph speed limit. This investigation was assigned to a consultant engineer. We reviewed the report submitted by the consultant and conducted an on-site review of the route.

Secondary 254 intersects MT 200 and continues west for approximately ¼-mile before entering Richey. The adjacent environment along this segment is rural. As the roadway enters Richey it continues west for ½-mile through the community. The adjacent environment consists of local business and residences along the south side of the roadway and grain elevators along the north side of the roadway. As Secondary 254 leaves the community it continues for ½-mile to a four-way intersection with two local roads. At this intersection Secondary 254 changes direction 90 degrees and continues north. This segment of roadway is also rural in nature with a few scattered buildings and a county shop. The average annual daily traffic volume within Richey is less than 300. The consultant collected travel speeds at six locations to develop a speed profile of the roadway as it approaches and passes through the community.

The results of this investigation have identified that Richey meets the definition to be considered an urban district. Therefore, the speed limit within the community is statutorily 25 mph. The urban district begins just east of the intersection with 2nd Street and continues west to the west city limit boundary. The 85th percentile speeds ranged between 33 mph and 36 mph within the central portion of the urban district to 37 mph and 41 mph on the outer fringes of the urban district.

Along the short segment of the roadway between the Richey urban district boundary and the intersection with MT 200 the 85th percentile speeds were 44 mph and 45 mph. West of town along the ½-mile segment the travel speeds were monitored at two locations. The 85th percentile speeds ranged between 46 mph and 51 mph along this segment.

There has been only one accident reported in the study area within the last three years.

Staff Recommendations: Based on the results of the consultant's investigation and local desires to maintain the posted 25 mph speed limit we recommend the following 45 mph speed limits for the individual roadway segments east and west of town.

East of Town

A 45 mph speed limit beginning at the intersection with MT 200 and continuing west to 2297+00, project S 32 (11) (300 feet east of the intersection with 2^{nd} Street South), an approximate distance of 1,500 feet.

West of Town

A 45 mph speed limit beginning at station 2321+55 (west city limit boundary) and continuing west to the intersection with Local Road #503 at station 2348+80, an approximate distance of 2,725 feet.

We also recommend the installation of "Reduced Speed 25" (R2-5b) signs with "250 FEET" supplemental plagues in advance of the 45 mph to 25 mph speed limit transition.

The proposed 45 mph speed limits were presented to Dawson County officials for review and comment. Their comments approving the recommended 45 mph speed limits are attached.

Winifred North – Secondary 236

EXE Request: Fergus County - September, 2001

EX Study Completion: September, 2003

ZZ Jurisdiction: County Maintenance

EXE Functional Class: Collector

Speed Limit: 45 mph Interim Speed Limit

2001 Traffic Volume: 100 AADT

EXE Accident Rate: 1.01 accidents per mym

1.77 Statewide Average

ZZ Issues: Validate 45 mph Interim Speed Limit

ZE Recommendation: 45 mph Speed Limit

ZZ Local Comments: Concur

This investigation was conducted as a follow-up to the interim 45 mph speed limit set on Secondary 236. This investigation was assigned to a consulting engineer. We reviewed the information submitted by the consultant and conducted an on-site review of the route. The investigation began just outside the Town of Winifred and continued north and west 23.9 miles to the Missouri River Bridge near the Judith River Landing. County officials are concerned about the number of accidents involving motorists that are unfamiliar with the roadway.

This segment of Secondary 236 has an average annual daily traffic volume of 100. The gravel roadway surface varies in width from 21-feet to 27-feet. During our drive-thru we found the roadway surface to be in overall good condition. The terrain is generally flat to rolling nature. However, as the roadway approaches the Judith River Valley the roadway winds down a steep ridge. The vast majority of the route is winding in nature as the roadway follows the contours of the terrain.

The consultant collected travel speeds at eight locations. The 85th percentile speed profile varied in relationship to changes in the terrain and the roadway geometrics. The 85th percentile speeds ranged from a low of 33 mph on the steep winding segment to 58 mph along a flat tangent segment. The majority of the 85th percentile speeds were between 45 mph and 53 mph. The pace of the traffic stream at the majority of the speed stations was (35 mph – 45 mph) with 48 percent to 65 percent of the traffic stream traveling within the pace.

The 45 mph speed limit represents the 70th percentile speed to the 85th percentile speed at seven of the eight directional speed samples collected.

There were three single vehicle accidents reported along this segment within the last three years. The accident rate is 1.01 accidents per million vehicle miles traveled. This is below the statewide average of 1.77 accidents per million vehicle miles traveled for rural secondary highways. Two of the accidents had adverse roadway conditions listed as a contributing factor.

As reported by the consultant the interim 45 mph speed limit has been successful in representing the overall travel speeds along this segment of Secondary 236. The accident experience indicates that motorists traveling this roadway are experiencing very few conflicts. We recommend validating the interim 45 mph speed limit as the permanent speed limit for this segment of roadway.

Staff Recommendations:

A 45 mph speed limit beginning at the pavement to gravel transition located at the northern boundary of the community of Winifred and continuing north and west to the Missouri River Bridge at milepost 47.9, an approximate distance of 23.9 miles.

This information has been presented to Fergus County Commissioners for review and comment. They are in favor of validating the 45 mph interim speed limit. Their comments are attached.

Valley Center Drive – Secondary 235

ZZ Request: Gallatin County May, 2000

Study Completion: May, 2003

ZZ Jurisdiction: County & State Maintenance

EXE Functional Class: Collector

Speed Limit: Interim 45 mph Speed Limit

Statutory 70 mph Speed Limit

2001 Traffic Volume: 1890 AADT (mp 0 to mp 4.2)

3385 AADT (mp 4.2 to mp 6.1)

ZZ Accident Rate: 2.84 accidents per mym

1.71 Statewide Average

EXE Issues: Maintain 45 mph Speed Limit and

Reduce Statutory 70 mph Speed Limit

EXE Recommendation: 45 mph - 60 mph - 50 mph

Speed Limit Configuration

Local Comments: Concur

The investigation was conducted by consulting engineer. We reviewed the consultant's report and conducted an on-site review of the route. The study area begins at the intersection with Jackrabbit Lane (mp 0.0) and continues east 6.1 miles to the intersection with North 19th Avenue. The segment of roadway from the intersection with Jackrabbit Lane to milepost 4.2 has an interim speed limit of 45 mph. The remainder of the route is statutorily 70 mph.

The consultant's investigation has identified that the typical travel speeds are below the statutory 70 mph speed limit along the entire route. The report identifies that this roadway is made-up of three distinct segments having different operational characteristics and travel speeds.

The 85^{th} percentile speeds along the first segment beginning at the intersection with Jackrabbit Lane and continuing east to milepost 4.2 range between 46 mph and 50 mph. The pace of the traffic stream ranged between (36 mph – 45 mph) and (41 mph – 50 mph). The travel speeds along this segment vary in relationship to the proximity and density of the

roadside development. Most of the development is concentrated between milepost 2.5 and milepost 4.2. Sixty percent of the accident experience occurred within this segment.

The 1.8-mile segment from milepost 4.2 to the intersection with Catron Street is undeveloped. The roadway geometrics and typical section are superior to those identified along the first segment. The travel speeds are higher in that the 85th percentile speeds ranged between 51 mph and 65 mph along this segment. The pace of the traffic stream ranged between (41 mph – 50 mph) and (55 mph – 65 mph). This is a short segment of roadway in rural terms in that motorists approach rural type travel speeds for a short distance, and then they begin reducing their travel speeds approaching the change in operation associated with the Bozeman urban area. This segment is relatively accident free with only three reported accidents in the last three years.

Along the final segment the operational characteristics transition from a rural highway to that of an urban street. Changes in the operation include the presence of nearby commercial development, increased traffic volume and a typical section change to a multi-lane roadway. These characteristics will soon expand west to the intersection with North 27th Avenue. The 85th percentile speeds ranged between 39 mph and 43 mph near the intersection with Catron Street to 51 mph and 55 mph just west of the intersection with North 27th Avenue. There is also a 4 mph variation in the directional travel speeds within this segment. The travel speeds are transitional in character as motorists approach the intersection with North 19th Avenue.

Based on the changes in the roadway operation and the travel speeds associated with them we recommend the following speed limit configuration for Secondary 235.

A 45 mph speed limit beginning at the intersection with Jackrabbit Lane and continuing east to station 13+00, project STPS 235-1(6) (300' east of the intersection with Cut-off Road), an approximate distance of 4.4 miles.

A 60 mph speed limit beginning at station 13+00, project STPS 235-1(6) and continuing east to station 63+00, project STPS 235-1(6), an approximate distance of 5,000 feet.

A 50 mph speed limit beginning at station 63+00, project STPS 235-1(6), (300' west of the intersection with North 27th Avenue) and continuing east to the intersection with North 19th Avenue, an approximate distance of 4,100 feet.

The proposed speed limit configuration was presented to Gallatin County officials for review and comment. Their comments approving the proposed recommendations are attached.

Springhill Road – Secondary 411

EXE Request: Gallatin County May, 2000

SE Study Completion: January, 2003

ZZ Jurisdiction: State Maintenance

EXE Functional Class: Collector

Speed Limit: Interim 55 mph Speed Limit

ZZ 2001 Traffic Volume: 1275 AADT

ZZ Accident Rate: 2.32 accidents per mym

1.71 Statewide Average

EXE Issues: Reduce Statutory 70 mph Speed Limit

EXE Recommendation: 35 mph - 45 mph - 55 mph

Speed Limit Configuration

ZZ Local Comments: Concur

Gallatin County officials requested a speed limit investigation along Secondary 411 beginning at the intersection with Secondary 205 and continuing north 1.5 miles to the intersection with Sypes Canyon Road (mp 1.5). This investigation was conducted by an independent consultanting firm under our term contract program. We have reviewed the consultant's report and conducted an on-site review of the roadway.

Secondary 411 has an approved 45 mph speed limit from milepost 0.0 to milepost 0.66, which is not posted. Currently there is an unapproved 35 mph speed limit posted from milepost 0.0 to milepost 1.1. The Butte District office and Gallatin County officials conducted a windshield survey and jointly recommended an interim speed limit of 55 mph from the end of the posted 35 mph speed limit at milepost 1.1 to milepost 1.7.

The roadside environment consists of scattered residential development and agricultural land. The density and proximity of development near the roadway decreases to the north. Special features within the study area include golf cart and pedestrian crossing activity. The accident rate of 2.32 accidents per million vehicle miles is above statewide averages for rural secondary highways. The accident rate and accident trends are consistent with those associated with secondary highways located in similar semi-developed environments next to a large urban area.

The consultant's findings support the need to revise both the official and posted speed limits along Secondary 411. The statutory 70 mph speed limit is also not compatible with the environment and the prevailing travel speeds along the first 2.6 miles of the route. Based on the results of the consultant's investigation we recommend the following special speed limit configuration.

Staff Recommendations:

A 35 mph speed limit beginning at station 0+-00, project RS 411-1(3) (intersection with secondary 205) and continue north to station 35+00, an approximate distance of 3,500 feet.

A 45 mph speed limit beginning at station 35+00, project RS 411-1(3) (400 feet north of the intersection with Gallatin Drive) and continue north to station 82+00, an approximate distance of 4,700 feet.

A 55 mph speed limit beginning at station 82+00, project RS 411-1(3) (300 feet north of the intersection with Sypes Canyon Road) and continue to station 137+00, an approximate distance of 5,500 feet.

The proposed speed limit recommendations were presented to Gallatin County officials for review and comment. Their comments approving the proposed speed limit configuration are attached.

Broadus South - Secondary 391

Request: Powder River County - April, 2002

EXE Study Completion: August, 2003

ZZ Jurisdiction: County Maintenance

EXE Functional Class: Collector

Speed Limit: 45 mph & 55 mph Interim Speed Limits

ZZ 2001 Traffic Volume: 76 AADT

ZZ Accident Rate: 1.48 accidents per mym

1.77 Statewide Average

∠∠ Issues: Validate Interim Speed Limits

Recommendation: 35 mph & 55 mph Speed Limits

ZZ Local Comments: Concur

This investigation is a follow up to the 45 mph and 55 mph interim speed limits set on Secondary 391. County officials felt that the statutory 70 mph speed limit was inappropriate for the route in that speeds in this range were unsafe and detrimental to the roadway. Based on the results of a windshield survey and arriving at a consensus with Powder River County officials the Glendive District office recommended 45 mph and 55 mph interim speed limits for Secondary 391. The interim speed limits were approved by the Montana Transportation Commission in May 2002. The 45 mph interim speed limit begins at the intersection with US 212 and continues south 4.2 miles. The remaining 12.4 miles of Secondary 391 has an interim speed limit of 55 mph.

Secondary 391 begins at an intersection with US 212 west of Broadus and continues south along the west side of the Powder River. The 2001 average annual daily traffic volume for route was 76. From the intersection with US 212 to milepost 0.5 the roadway is paved. The paved surface is breaking up and contains numerous potholes. The remainder of the route is gravel. The average roadway width is 20 feet on both the paved and gravel segments. There is a concentration of residential development located near the roadway along the paved segment. These residences set back from the roadway and are accessed by four local streets. The roadside side culture along the remainder of the route consists of rangeland. The terrain along the rural portion varies from flat to rolling.

The accident history was reviewed for a three-year period from January 1, 2000 to December 31, 2002. During this period there were two accidents reported along Secondary 391. The accident rate is 1.48 accidents per million vehicle miles traveled. This is below the statewide average of 1.77 accidents per million vehicle miles for rural secondary highways. The accident experience consisted of a single vehicle accident at milepost 4.1 and a rearend accident at milepost 9.5.

Vehicular travel speeds were collected at six locations along Secondary 391. Within the central area of the paved portion of Secondary 391, the 85^{th} percentile speeds were 36 mph. The pace of the traffic stream ranged between (20 mph - 30 mph) and (23 mph - 33 mph) with 45 percent to 49 percent of the traffic stream traveling within the pace.

At milepost 1.5 the 85th percentile speeds were 56 mph and 57 mph. The pace of the traffic stream was (37 mph – 47 mph) with 39 percent to 47 percent of the traffic stream traveling within the pace. At the end of the interim 45 mph speed zone the 85th percentile speeds were 54 mph and 66 mph. The pace of the traffic stream ranged between (40 mph – 50 mph) and (49 mph – 59 mph) with 42 percent to 50 percent of the traffic stream traveling within the pace. Near milepost 6.8 the 85th percentile speeds were 55 mph and 56 mph. The pace of the traffic stream ranged between (43 mph – 53 mph) and (46 mph – 56 mph) with 52 percent to 56 percent of the traffic stream traveling within the pace. Near milepost 9.5 the 85th percentile speeds were 55 mph and 57 mph. The pace of the traffic stream ranged between (43 mph – 53 mph) and (46 mph – 56 mph) with 40 percent to 56 percent of the traffic stream traveling within the pace. At the end of the secondary route designation the 85th percentile speeds were 56 mph. The pace of the traffic stream ranged between (40 mph – 50 mph) and (43 mph – 53 mph) with 51 percent to 55 percent of the traffic stream traveling within the pace.

Staff Recommendations: Secondary 391 consists of two distinct roadway segments. Both segments are functioning safely with travel speeds that are well below the statutory 70 mph speed limit. The first is the 0.5-mile segment that is paved and passes along the semi-developed residential area. The 85th percentile speeds along this segment support a 35 mph speed limit.

The second segment is the remaining 16.1 miles of gravel roadway. The roadside environment along this portion of the route is rural. The roadway characteristics and the travel speeds are reasonably consistent throughout this segment. The 85th percentile speeds along this segment are typically around 55 mph.

In relationship the interim speed limits, we recommend reducing the interim 45 mph speed limit to 35 mph along the first 0.5 miles of Secondary 391. A 35 mph speed limit is more representative of the travel speeds associated with the roadway surface characteristics and the adjacent environment. From the end of the pavement to the end of the Secondary route designation at milepost 16.6 we recommend a 55 mph speed limit, as the 85th percentile speeds are uniformly around 55 mph throughout the remainder of the route.

A 35 mph speed limit beginning at the intersection with US 212 and continuing southwest 0.5 miles to the end of the pavement.

A 55 mph speed limit beginning at the pavement to gravel transition and continuing south to the end of the secondary route designation, an approximate distance of 16.1 miles.

In addition to the proposed speed limits we also recommend a "Reduced Speed 35" sign in advance of the 35 mph speed zone for motorists approaching the semi-developed area. The proposed speed limit configuration was presented to Powder River County officials for review and comment. Their comments approving the proposed recommendations are attached.

Froid – Secondary 405

Z Request: Roosevelt County - August, 2000

EX Study Completion: August, 2003

State Maintenance

EXE Functional Class: Collector

Speed Limit: Statutory 25 mph Speed Limit &

Statutory 70 mph Speed Limit

2001 Traffic Volume: 260 AADT

ZZ Accident Rate: No Reported Accidents

Establish Special Speed Limit

Approaching Froid

Recommendation: Maintain Statutory 25 mph Speed Limit

Introduce 45 mph Speed Limit

ZZ Local Comments: Concur

This investigation was conducted by a consulting engineer. We reviewed consultant's report and conducted an on-site review of the route. The community of Froid is located just east of MT 16. Secondary 405 begins at an intersection with MT 16 and passes through the community. Upon being informed by the Glendive District office that there were no approved special speed limits on record for this segment of roadway local officials requested a speed limit investigation.

The consultant's report has identified that the segment of Secondary 405 from the intersection with MT 16 to the northern boundary of the community meets the definition to qualify as an urban district. The 85^{th} percentile speeds range between 25 mph and 26 mph within the central portion of the urban district to 32 mph and 34 mph at the community boundaries. The pace of the traffic stream ranged between (15 mph – 25 mph) and (20 mph – 30 mph) with 59 percent to 87 percent of the traffic stream traveling within the pace.

The consultant's report has also identified that the 85th percentile speeds ranged between 41 mph and 45 mph range 0.1-mile north of the urban district boundary. There are a few residences in this area that are separated from the main body of the community.

There have been no reported accidents within the last three years.

Based on the 85th percentile speed profile and its relationship to the community we recommend the following 45 mph speed limit approaching Froid from the east. The statutory 25 mph speed limit will remain as posted for the remainder of the study area to the intersection with MT 16.

Staff Recommendations:

A 45 mph speed limit beginning at station 34+00, project S438(3) (400 feet east of the intersection with 6^{th} Avenue) and continuing east to station 44+00, an approximate distance of the 1,000 feet.

We also recommend a "Reduced Speed 25" sign with a "250 FEET" supplemental plaque in advance of the 45 mph to 25 mph speed limit transition.

The proposed speed limit recommendations were presented to Roosevelt County officials for review and comments. Their comments approving the proposed 45 mph speed limit are attached.

Agenda Item: 11-03-03				
Staff Person Handling: Joel Marshik				
Date: November 6, 2003				
Item: Certificates of Completion				
Background: Attached are certificates of completion for August and September, 2003.				
Staff Recommendations: Staff recommends approval.				
Notes/Discussion:				
Commission Action:				

Agenda Item: 11-04-04 Staff Person Handling: Joel Marshik Date: November 6, 2003 Item: Liquidated Damages – IM 15-4(86)190 Helena North and South Background: Riverside Contracting, Inc. of Missoula, MT., overran the contract time by 3 days. We wrote the contractor on June 18, 2003 of the overrun of contract time (copy attached). They were informed they had 30 days in which to respond if they intended to request a waiver from the Commission. They were also informed that if a written reply was not received within 30 days, the Liquidated damages would stand. As there was no response from the contractor, our recommendation is as noted below. Award Date: 11/27/00 Proceed Date: 04/16/01 Work Began: 03/26/01 Work Completed: 11/07/02 Contract Time: 90 days Work Extensions: 22 days Time Used: 115 days Overrun: 3 days We recommend assessing 3 days at \$1,397.00 per day for a total of \$4,191.00. Staff Recommendations: No action necessary unless the Commission chooses to waive the liquidated damages assessment.

Notes/Discussion:

Commission Action:

Staff Person Handling: Joel Marshik				
Date: November 6, 2003				
Item: Work Orders				
Background: Attached are work orders for August 2003 totaling \$1,306,783.12 and September 2003 totaling \$984,588.01.				
Staff Recommendations: Staff recommends approval.				
Notes/Discussion:				
Commission Action:				

Agenda Item: 11-04-05

Agenda Item: 11-03-06				
Staff Person Handling: Joel Marshik				
Date: November 6, 2003				
Item: Letting Lists				
Background: See attached.				
Staff Recommendations: Staff recommends approval.				
Notes/Discussion:				
Commission Action:				

Agenda Item 11-04-07

Staff Person Handling: Jeff Ebert

Date: November 6, 2003

 $Item: \ Amsterdam \ Road-Update$

Agenda Item: 11-04-08

Staff Person Handling: Transportation Commission

Date: November 6, 2003

Item: Commission Discussions and Public Comment

Agenda Item: 11-03-09

Staff Person Handling: Transportation Commission

Date: November 6, 2003

Item: Future Meetings

Background: Listed below are the approved letting dates for calendar year 2004. Next to that date is the telephone conference call to award date as suggested by the policy.

Letting Date	Review Meeting Date	Award Date
January 29	February 5	February 9
February 26	March 4	March 8
March 25	April 1	April 5
April 29	May 6	May 10
May 27	June 3	June 7
June 24	July 1	July 5
July 22	July 29	August 2
August 19	August 26	August 30
September 30	October 7	October 11
November 4	November 11	November 15
December 2	December 9	December 13

A regular meeting date also needs to be set in January.

Staff Recommendations: Staff recommends approval of the award date meetings.